

REMARKS

Claims 1-14 are in the case. Claims 1-14 were made subject to restrict. Claims 1, 3 and 5 with respect to SEQ ID NO:8 are under consideration. Claims 2, 4 and 6-14 have been canceled as drawn to a non-elected invention.

Claim 3 has been canceled by this amendment.

Claims 1 and 5 have been amended to more clearly define Applicants invention

Claims 1, 3 and 5 are rejected variously over 35 USC § 112 and 102.

Paragraph numbers below correspond to those in the present action.

No new matter has been added.

Election/Restrictions

1. Applicants note the Examiner's acknowledgement of the Election of Claims 1, 3 and 5 as they read on SEQ ID NO:8.

Sequence Compliance

2. The application fails to comply with the requirements of 37 CFR 1.821 because some sequences lack sequence identifiers. In particular the sequence on page 29, line 13 is noted. The specification has been amended to correct this oversight.

3. The correct address for mailing information relating to the sequence rules is noted.

Specification

4. The specification is objected to for the use of embedded hyperlinks. Page 20, line 10 is noted. The hyperlink has been removed.

5. The specification is objected to for informalities. Specifically:

The Brief Description of Figure 1 refers to DHE-195. However, this strain is not listed in Figure 1, and only makes reference to DHE (cornell). DHE-195 and DHE (cornell) are one and the same. The specification has been amended to clarify the point that DHE-195 and DHE (cornell) are one and the same.

The Examiner questions whether "signature regions" as described on page 11 are the same as "signature groups" as described in Table 2. Signature regions are the same as signature groups. The definition of "Signature region" found on page 6 has been amended to allow for this alternate terminology.

Claim Objections

6. Claim 1 is objected to for informalities. Specifically Claim 1 recites non-elected subject matter. The Claim has been amended to overcome this objection.

Claim Rejections – 35 USC § 112

7-9 Claims 1, 3 and 5 are rejected under 35 USC § 112, first paragraph for lack of written description and lack of enablement. Specifically, it is the Examiner's opinion that the specification does not adequately describe nor enable all sequences that hybridize to SEQ ID NO: 8 under stringent conditions.

The Claims have been amended to overcome this rejection in that the hybridization conditions have been removed from the Claims.

10-11. Claims 3 and 5 are rejected under 35 USC § 112, second paragraph for indefiniteness. Specifically: The Examiner suggests that present Claim 3 expands the scope of Claim 1 from which it depends by the recitation that E198 = G, E201=T, E208=C E217=A, and E222=G.

The Examiner has correctly noted in the discussion under paragraph 8 that there is a discrepancy in the numbering assigned to the variable nucleotides of SEQ ID NO:8. The specification correctly defines the variable nucleotides in SEQ ID NO:8 on page 11, beginning at line 28, as follows:

“Although a region similar to that defined by SEQ ID NO:8 is found in the literature sequence, there are significant variations at positions, E184, E190, E197, E200, E207, E216, and E221 as shown below.”

However the sequence shown directly below this statement misidentifies E197 as E198, E200 as E201, E207 as E208, E216 as E217, and E221 as E222. The variable nucleotides are correctly identified in the sequence listing as follows:

<400> 8

tgtgrtgggc ygacatawgt yggttcayta aagccgyaag gygcttg

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The specification has been amended on page 11 and in Table 2 to correct this typographical error.

In view of the cancellation of non-elected subject matter in Claim 1 Applicants have canceled Claim 3.

Claim 5 is dependant on canceled Claim 4. Claim 5 has been duly amended.

Claim Rejections – 35 USC § 102

12-13. Claim 5 is rejected under 35 USC § 102(b) as being anticipated by Maymó-Gatell et al. (*Science*, 176:1568 (1997)), hereinafter Maymó. Applicants traverse.

A valid rejection under 35 USC § 102 requires that each and every element of the claimed invention reside in a single reference. The claims have been amended to be inclusive only of sequence as defined in SEQ ID NO:8. In view of this amendment Applicants submit that the sequence taught by Maymó (DHE-195) is not encompassed by the claims as now amended.

In view of the above comments and the amendments to the claims Applicants respectfully request removal of all rejections and reconsideration of the claims as now amended.

Respectfully submitted,



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Dated: April 04, 2003